

REMARKS

Claims 1, 5, 6, 13, 15, 16, 22, and 23 are pending in the present application. By virtue of this response, claims 1, 5, 6, 13, 15, 16, 22, and 23 have been amended. Support for these amendments may be found throughout the specification, such as, for example, paragraphs [0028], [0031]-[0035], and [0045]-[0055]. No claims have been canceled, and new claims 26, 27, and 28 have been added. Support for these claims may be found throughout the specification, such as, for example, paragraphs [0031], [0033], and [0035]. Accordingly, claims 1, 5, 6, 13, 15, 16, 22, 23, and 26-28 are currently under consideration.

Substance of Examiner Interview

Applicant thanks Examiner Miller for extending the courtesy of a telephonic interview, which was had on March 31, 2010 with Applicant's representatives Mika Mayer and Marcus Reeslund. During that interview, the independent claims and the cited references were discussed. Specifically, proposed limitations to independent claims 1 and 13 were discussed. These limitations are incorporated into the amendments above, and discussed below.

Claim Rejections under 35 U.S.C. § 112

Claims 1, 5, 6 and 22 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Office Action states that the claim language "a continuous sinotubular junction stabilizing device ... for uniformly stabilizing the diameter of the sinotubular junction from an inside and an outside of the sinotubular junction" from claim 1 constitutes new matter because "'a continuous sinotubular junction stabilizing device' is seemingly one device ... thus it is unclear how it may be provided on the inside and outside of the STJ at the same time." In order to expedite prosecution, claim 1, from which claims 5, 6, and 22 depend, has been amended to remove this limitation. Accordingly, Applicant respectfully requests that the rejection of claims 1, 5, 6, and 22 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Additionally, claims 1, 5, 6, and 22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Office Action states that there is insufficient antecedent basis in claim 1 for the limitations “the inner discontinuous aortic annulus stabilizing device,” “the inner continuous sinotubular junction stabilizing device,” and “the continuous sinotubular junction stabilizing device.” In order to expedite prosecution, claim 1, from which claims 5, 6, and 22 depend, has been amended to remove these limitations. Accordingly, Applicant respectfully requests that the rejection of claims 1, 5, 6, and 22 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim Rejections under 35 U.S.C. § 102(e)

Claim 1

Claim 1 stands rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Pat. No. 6,511,506 to Chevillon et al. (“Chevillon”). Applicant disagrees with this rejection.

Specifically, claim 1 has been amended to recite “an aortic annulus stabilizing apparatus comprising an inner discontinuous band stabilizer having two free ends and an outer discontinuous band stabilizer having two free ends; and a sinotubular junction stabilizing apparatus comprising an inner continuous ring stabilizer and an outer continuous ring stabilizer, wherein the outer continuous ring stabilizer is sized and configured to continuously encircle an outer surface of the sinotubular junction”. As discussed during the telephonic interview, Chevillon does not teach or disclose an apparatus having both discontinuous band stabilizers with free ends and continuous ring stabilizers. Specifically, Chevillon does not teach or disclose an inner continuous ring stabilizer and an outer continuous ring stabilizer that is sized and configured to continuously encircle an outer surface of the sinotubular junction. The Office Action points to elements **150** and **31** as support for continuous stabilizers. These elements, however, are not capable of *continuously encircling* tissue, as they are configured to be *partial* or *open* rings. See, e.g., col. 5, ll. 51-54 (“mechanically structuring core **31** having the shape of a *split ring* or collar (*not entirely closed on itself*)” (emphasis added)); col. 8, ll. 13-20 (“The strengthener can be structurally independent from prosthesis (reference **150**,

FIG. 1) the frame thereof can substantially be the same as the one of the ring **31** (*splitting ring*)” (emphasis added)). These open rings taught by Chevillon may not provide the same bearing strength as a continuous ring stabilizer that continuously encircles tissue. This may result in insufficient stabilization of the sinotubular junction, which may result in drooping of the stabilized tissue. For at least these reasons, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. § 102(e) be withdrawn.

Claims 13, 15, 16, and 23

Claims 13, 16, and 23 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Pat. Pub. No. 2005/0065597 A1 to Lansac (“Lansac”). Claims 13 and 15 also stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Pat. Pub. No. 2007/00016290 A1 to Duran (“Duran”). Applicant disagrees with these rejections.

Specifically, independent claim 13, from which claims 15, 16, and 23 depend, has been amended to recite “implanting an inner discontinuous band stabilizer inside the aortic lumen proximate the aortic annulus of the aortic valve; implanting an outer discontinuous band stabilizer outside the aortic lumen proximate the aortic annulus of the aortic valve; implanting an inner continuous ring stabilizer proximate an interior surface of the sinotubular junction of the aortic valve; and implanting an outer continuous ring stabilizer proximate an exterior surface of the sinotubular junction of the aortic valve.” As such, claim 13 recites a method that requires the implantation of two discontinuous band stabilizers (one inside and one outside of the aortic lumen proximate the aortic annulus) and two continuous ring stabilizers (one inside and one outside of the sinotubular junction). As discussed during the telephonic interview, neither Lansac nor Duran teach or disclose the implantation of four stabilizers as required by claim 13. Accordingly, Applicant respectfully requests that the rejection of claims 13, 15, 16, and 23 under 35 U.S.C. § 102(e) be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 5 and 6

Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Chevillon. Claims 5 and 6 depend from independent claim 1, which was discussed in detail above. Specifically, Applicant described how Chevillon fails to teach “an aortic annulus stabilizing apparatus comprising an inner discontinuous band stabilizer having two free ends and an outer discontinuous band stabilizer having two free ends; and a sinotubular junction stabilizing apparatus comprising an inner continuous ring stabilizer and an outer continuous ring stabilizer, wherein the outer continuous ring stabilizer is sized and configured to continuously encircle an outer surface of the sinotubular junction.” For at least the reasons that Chevillon fails to teach each and every element of claims 5 and 6, Applicant respectfully requests that the rejection of claims 5 and 6 under 35 U.S.C. § 103(a) be withdrawn.

Claim 15

Claim 15 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Lansac in view of U.S. Pat. Pub. No. 2003/0069593 A1 to Tremulis et al. (“Tremulis”). Claim 15 depends from independent claim 13, which was discussed in detail above. Specifically, Applicant described how Lansac fails to teach “implanting an inner discontinuous band stabilizer inside the aortic lumen proximate the aortic annulus of the aortic valve; implanting an outer discontinuous band stabilizer outside the aortic lumen proximate the aortic annulus of the aortic valve; implanting an inner continuous ring stabilizer proximate an interior surface of the sinotubular junction of the aortic valve; and implanting an outer continuous ring stabilizer proximate an exterior surface of the sinotubular junction of the aortic valve.” Tremulis fails to cure this deficiency. For at least the reason that the cited references (alone or in combination) fail to teach each and every limitation of claim 15, Applicant respectfully requests that the rejection of claim 15 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Additionally, any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole. Applicant respectfully traverses each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches, even if not expressly discussed herein. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Rather, the amendments are made only to expedite prosecution of the present application, and without prejudice to presentation or assertion, in the future, of claims on the subject matter affected thereby.

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child, or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 677062000200. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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